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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,021	07/10/2001	Scott H. Mathews	38190/234988	9288

826 7590 05/19/2003

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EXAMINER

AKERS, GEOFFREY R

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 05/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

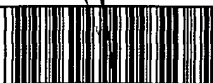
# Office Action Summary

Application No.  
**09/902,021**

Applicant(s)  
**Mathews**

Examiner  
**Akers, Geoffrey**

Art Unit  
**3624**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 18, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## **DETAILED ACTION**

### ***Reply to Response***

1. This action is issued in reply to applicant's Response(Paper #5) filed 3/18/03.
2. No claims were amended. None were cancelled. No new claims were added.
3. Claims 1-27 as originally filed, are pending.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-27 are rejected under 35 USC 103(a) as unpatentable over Glasserman(US Pat. No: 6,381,586) in view of Shepherd(US Pat. No: 6,157,918) and further in view of Makivic(US Pat. No: 6,061,662).The rejections as stated in the First Office Action are maintained.
6. As per claims 1-27 Glasserman teaches a method of performing a contingent valuation(Abstract)(Fig 6/606)(Fig 5/508). Shepherd teaches depicting future values with future times of maturity for derivatives(Fig 9A)(Fig 9B)(Fig 10A)(Fig 10B)(Fig 11A)(Fig 11B)(12A)(Fig 12B) utilizing discount rates as well as calculational means(col 2 line 50-col 3 line 18)(col 14 line 54-col 15 line 15). Makivic teaches price changes and losses in derivative markets(Fig 3)(col 4 lines 12-20).It would have been obvious to one skilled in the art at the time

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of the invention to combine Glasserman in view of Shepherd to teach part of the above. The motivation to combine is to teach a method to reduce investment risk as enunciated by Shepherd(col 1 line 37-col 2 line 9).It would have been obvious to one skilled in the art at the time of the invention to combine Glasserman in view of Shepherd and further in view of Makivic to teach the above. The motivation to combine is to teach a method for derivative valuation for market participants as enunciated byh Makivic(col 2 lines 58-62).

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-27 rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. In particular, applicant is requested to present the defining equations, conditions,assumptions in the model formulation together with the derivations in sufficient detail so that one of ordinary skill in the art can evaluate the model.

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 19-27 are rejected under 35 USC 101 for failing to describe a concrete,useful and tangible output.

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*Response to Arguments*

11. Applicant's arguments filed 3/18/03 have been fully considered but they are not persuasive. Glasserman and Makivic both teach pricing options(Fig 1/12)(Abstract) which includes pricing for a contingent future benefit.Makivic further teaches ascertaining current asset data(Fig 1/40) which incorporates current asset pricing as well as the determination of historical option price volatility estimation based on real data(Fig 4).Calculation of the present value from a distribution of future values is well known and is directly dependent upon an imputed interest rate, or discount rate and an entire family of discount rates may be derived to produce a distribution of present values.

With respect to the 112 rejection, no defining equations, assumptions,limitations or validity conditions have been addressed by applicant, nor stability issues with respect to the solutions obtained as well as the sets of conditions under which the Black-Sholes options pricing model holds true for the present disclosure. The derivation of equation (1) is required to ascertain the model's structure.The model must be presented in sufficient derivational detail to permit one to determine its novel features as advanced by applicant.

With respect to the 101 rejection a computer readable medium in itself does not define a mathematical,tangible output. It is purely a storage medium.Code embedded on the medium with executabvle portions in themselves still do not define a concrete output of an array of values.

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***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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13. Questions concerning this communication should be addressed to the primary examiner of record, Dr. Geoffrey Akers, P.E., who can be reached between 6:30 AM and 5:00 PM Monday through Friday at 703-306-5844. If attempts to contact the examiner are unsuccessful, the primary examiner's superior, Mr. Vincent Millin, SPE, may be telephoned at (703)-308-1065.

The fax number for Formal or Official faxes and Draft or Informal faxes to Technology Center 3600 or this Art Unit is (703)-308-3687.

GRA

May 13, 2003

**DR. GEOFFREY R. AKERS, P.E.**  
**PRIMARY EXAMINER**